

University News



S. Z. Qasim, Secretary, Department of Ocean Development, Government of India, delivering the convocation dress at the Annamalai University, Annamalainagar. Seated on his right are Shri S. L. Khurana, Governor of Tamil Nadu and Chancellor of the University and Prof. S V Chittibabu, Vice-Chancellor.

A.I.U. PUBLICATIONS

	Rs		Rs
1 Universities Handbook—1983-84	250 00	41 Monograph on Test & Item Analysis	10 00
2 Handbook of Engineering Education—1984	14 00	42 Monograph on Question Banking in English Language & Literature	80 00
3 Handbook of Medical Education—1984	14 00	43 Monograph on Practical Examinations	9 00
4 Handbook of Management Education—1984	13 00	44 Monograph on Semester System	20 00
5 Handbook of Agricultural Education—1983	20 00	45 Research Abstracts—Parts I, II & III	each 6 00
6 Association of Indian Universities—History	50 00	46 Research Abstracts—Part IV	14 00
7 Universities and Research	45 00	47 Monograph on Moderation of Examination Results	5 00
8 University Finance—A Statistical Profile I	50 00	48 Monograph on Syllabus Analysis and Restructuring	10 00
9 University Finance—A Statistical Profile II	75 00	49 Monograph on Revaluation of Answer Scripts	12 00
10 Enrolment in Higher Education—A trend analysis	20 00	50 Assessing Non Scholastic Aspects of Learners Behaviour	14 00
11 Resource Allocation on Education—Research Studies	20 00		
12 Research in Economics of Education—India	10 00		
13 Three Aspects of University Education	50 00		
14 University and College Finances—Seminar Papers	50 00		
15 Economics of College Education —A Study of Hindu College, Delhi	30 00		
		STATUS REPORTS ON	
		51 Grading in Universities	In Press
		52 Question Banking in Universities	In Press
		53 Internal Assessment in Universities	In Press
		54 Internal Management in Universities	30 00
		55 Preparations Made by Universities to Receive 10 + 2 Input	30 00
		QUESTION BANK BOOK SERIES	
		Undergraduate level	
		56 Mathematics	50 00
		57 Physics	35 00
		58 Chemistry	60 00
		59 Zoology	35 00
		60 Botany	35 00
		61 History	20 00
		62 Geography	25 00
		63 Psychology	35 00
		64 Economics	40 00
		65 Commerce	40 00
		66 Political Science	30 00
		67 Foods & Nutrition	25 00
		68 Sociology	40 00
		69 English Language & Literature	25 00
		70 Physiology	30 00
		71 Pharmacology	35 00
		72 Automobile Engineering	35 00
		73 Law of Contracts	25 00
		74 Anatomy	60 00
		Postgraduate level	
		75 Mathematics	60 00
		SPORTS & PHYSICAL EDUCATION	
		76 Sports Management in Universities	30 00
		77 Handbook of Rules & Regulations for Inter-University Tournaments	7 50
		78 Gymnastic Exercises for Men & Women	each 5 00

Books also available with leading booksellers in the country

Address Enquiries to

Association of Indian Universities

AIU House, 16 Kotla Road, New Delhi 110002

Telephones • 276504, 273037

UNIVERSITY NEWS

VOL. XXII

MARCH 16

No. 11

1984

Price

Re. 1.00

A Weekly Chronicle of Higher Education published by the Association of Indian Universities

IN THIS ISSUE

Seminar on New Education	2
Whither Social Work Education	4
Convocation	
Annamalai University	8
News from Universities	
Seminar on Management Concepts for Higher Productivity of Educational Institutions	11
US envoy visits Cochin University	12
Course in Indian languages at Tatyasaheb Kore	13
Maharashtra State to review education policy	14
Seminar on aspects of history and culture	15
Agriculture	
Farm business management course	15
HAU working to be reviewed	15
News from Abroad	
Strong demand for University places in Australia	16
Research in Progress	17
Theses of the Month	18
Classified Advertisements	23

Opinions expressed in the articles and reviews are individuals and do not necessarily reflect the policies of the Association

Editor,

M S RAMAMURTHY

Book Binding Techniques

Given below are the recommendations of the International Seminar-cum-Workshop on Development of Book Binding Techniques organised by the National Book Trust, India, an autonomous organisation under the Ministry of Education & Culture, with the assistance of UNESCO, at New Delhi, on the occasion of the Sixth New Delhi World Book Fair held from 4-14 February, 1984

- Book promotion organisations in each member country should request the National Standard Organisation in the respective country to formulate standards for materials and inputs used in book binding. It was noticed that there was hardly any quality control in these areas.
- The printing and other like institutes in each country may be requested to impart specialised training for both hand and mechanised binding. Polytechnics institutions, in particular may be requested to include book binding as a part of their curriculum. The seminar also recommended that an exclusive institute be set up in each country for training craftsmen and personnel required for binding departments.
- Serious efforts be initiated, on a priority basis, in each country for the revival of craftsmanship in book binding in view of the gradual disappearance of such craftsmanship, which the seminar noted was a global phenomenon and has caused serious concern. At the same time, efforts to sustain hand binding should also be made, as hand-binding has an important role to play in many countries specially for small editions.
- Publishers, printers and binders may be urged to use material of standard quality for book binding.
- The Governments of the respective countries may be requested to consider to abolish the duty on the import of machinery for book binding so that such machinery is available easily and at competitive prices.
- The member states may be requested to mobilise national level efforts to make available and develop raw material and machinery of high quality required for book binding. It was noticed that in many countries such material was available but was not being used exclusively for book binding.
- Each country may be requested to set up Development Panels at national levels to look into the problems of the binding industry.
- Urgent efforts may be made to write and produce good manuals and guides for book binding.
- Awards and incentives may be instituted for best bound books and craftsmen so that such work receives due recognition and encouragement.
- Facilities for scientific testing of materials used for binding may be made available.
- Efforts to compile comprehensive sources of supply of binding materials may be made.
- Such International Seminars be organised frequently in different countries so that the latest developments in technologies are shared and arrangements are made for the exchange of experts.

Avadh University Seminar on “New Education”

Avadh University, Faizabad organised a seminar on “New Education” on February 11 and 12, 1984 at Butler Palace, Lucknow. The Vice-Chancellor of the University, Dr. A.P. Mehrotra, has sent a report on the seminar. The seminar was addressed by Hon’ble Shri C P N Singh, Governor of Uttar Pradesh. Many educationists and others participated.

There is considerable concern expressed at the absence of a value orientation in our educational programmes. A large majority also feels that, despite some islands of excellence in our educational system, there is plenty that needs close examination and urgent reform. Also is a growing belief, articulated more forcefully in recent times, that for the survival and progress of humanity there is an imperative need to harmonise science and technology with the arts and culture.

What has “New Education” as a concept to offer against the background of what has been briefly stated above? Perhaps readers may discover a glimpse, perhaps a ray of hope and an answer in the report of the seminar which we have great pleasure in giving below.

We would also welcome further ideas on the subject

-- Editor

The inaugural session of the seminar started with the Kulgeet of Avadh University. Dr A P Mehrotra Vice-Chancellor of Avadh University welcomed the Governor Shri C P N Singh the Education Minister of U P, Dr Ammal Rizvi Dr Kireet Joshi Special Secretary of Higher Education Chairmen of different Commissions, distinguished VCs and learned delegates from different parts of the country. Highlighting the background of New Education, Dr Mehrotra requested the Governor to inaugurate the seminar.

The Governor expressed his satisfaction over the enthusiasm and response of the participants. Since he has been the initiator of the idea he tried to thrash out the salient features of New Education—education for the re-affirmation of the Man his excellence and perfection. He termed Education as a man-making process by steady practice of concentration and will power.

He highlighted three essential ideas that lie at the basis of New Education. Firstly it was a deliberate process, a profound science and art of psychological

perfection. Secondly education is an organisation organising the impulsive life processes. Thirdly education is an integration. It harmonized different threads of tendencies propensities aspects and poised of everprogressive manhood. It leads to liberation मा विद्या प्रविमनतयः

Shri Singh remarked that the theme of New Education and its background have become more important today. He asked the teachers and educationists to re-examine the promises and processes of current education. We have to



Photograph taken on the occasion of a seminar on ‘New Education’ organised by the Avadh University at Butler Palace, Lucknow

learn the true art of learning He visualised that the question is relevant not only in Arts, Science and Commerce but in the fields of professional courses too viz Agri, Engg, Medicine etc

We have to develop new attitudes and a flexible system of education as already propounded by Bertrand Russell and Shri Aurobindo

In the end he remarked that the task is difficult but not impracticable as it has been appreciated and approved by the Prime Minister of India

Dr Ammar Rizvi expressed his privilege for getting an opportunity to realise the book—'Mahamahim Sri C P N Singh Speaks on New Education'

Shri R C Tripathi the Education Secretary to U P Govt passed a motion of thanks for the Governor, Hon'ble Education Minister and all the organisers and participants and guests

The keynote address was presented by Dr Kireet Joshi

In the business session Dr Kireet Joshi, presenting his paper 'Learning to be gave a brilliant exposition of the central theme of New Education and visualised that this ideology, though initiated at present by UNESCO is basically Indian. The system of New Education has been designed to eradicate the evils of present educational system and to meet the challenges of future. He tried to elaborate the different levels of consciousness and their interrelations, visualising that the child is to be liberated

The New Education in his view is value-oriented. He tried to elaborate different aspects of value teaching. Quoting profusely from the works of Plato he emphasized that present man is to be transformed since he is transitional being. Throwing light on several trinities of virtue he laid emphasis on the cultivation of virtues for attainment of perfection

Children, being keen observers, are to be guided through right type of 'examples and influence'. He laid emphasis on introspection, purification and realization of supreme ideals. Discussing the central concept of morality to 'Swabhava' and 'Swadharma' he suggested that it is a preparation for spirituality—the discovery and perfection of the inner self

Appropriate methods are to be explored and developed for teaching of values at different levels which are to be learned in their psychological aspects. For this, a flexible structure and free progress are essential. Analysing the triple system of education—lecture, syllabus and examination he envisaged an evolutionary curriculum in which child is to be consulted at every stage

Dr Joshi in his paper discussed elaborately the objectives and methods of testing. The tests are to be spontaneous and should be a means of self evaluation, stimulation, correction and perfection

Dr Joshi proposed four main features regarding the organization of New Education and the general role of the teachers

(a) A sincere pursuit of the Truth, (b) informality in instruction, (c) an ever fresh youthfulness, (d) a search for the higher aims of life

He differentiated between culture and training and visualised that both are to be harmonised in the system. In the end Dr Joshi made three main recommendations

(a) Learning by practising, (b) search for meaning & unity of knowledge, (c) perpetual education and perpetual youth

In conclusion he reiterated that learning to be and value oriented education are not only relevant to the need of our times but they are imperative if we wish to prepare India for the imminent future

Dr Joshi explained the salient features of the exhibition—"A

philosophy of education for the contemporary youth—learning to be". He traced some trends in the youths of India. The youths suffer from fear of unemployment, are revolting and attracted towards various types of indulgence. But there are two very helpful tendencies, love for science and internationalism which can be taken as a lever to lift the youth. Analysing the contents of the exhibition he said that it is divided into four chapters. The first chapter is related to the changing horizon of the contemporary youth, the second to the contemporary youth groping for learning to be, the third to science and art of learning to be and the fourth to the vision of the future

Dr T K Sarkar presenting an outline of the Exhibition on Human Evolution said that it tried to depict the concept of evolution. Evolution of the Cosmos, evolution of life and Art, relation of evolution to Education, evolution of Science and Technology and present dangers of exploitation and possibilities and probabilities of the survival of man

Participants visited the exhibition. There was also an open discussion

Dr A P Mehrotra concluded the session and the Seminar by saying that we should seriously take up the concept of New Education because everybody agreed that the present educational system was completely outdated and rotten and must be cleaned. Hence value oriented education was of prime need

For its implementation we will have to develop an infrastructure which has to be evolved by the teachers who will have to work with missionary zeal. Simultaneously Teacher Training Programmes will also have to be oriented further on micro and macro levels and will have to be reorganised. The Avadh University, G B Pant University of Agriculture and Technology and Lucknow University will start New Education System from July, 1984. □

Whither Social Work Education

J Visuvathas Jeyasingh*

Introduction

In common parlance "lend a helping hand" is often termed as Social Work. In fact, Social work is a helping and enabling profession. Since times immemorial, it operated in the form of charity whereby the poor were given food or clothes or shelter as social service. The basic content and meaning of social work has remained unchanged over many centuries, what has, now changed is the technique, the service and the expertise. It may now be termed as 'scientific social service' in which performance, methods, design and attitude for positive social change and social action plays a vital part. Therefore, social work now, is considered as a motivational process by which it tackles the problems of human beings in a scientific way and makes them self-made, self-reliant and self-content individuals, groups and communities. Its main objectives are to restore impaired social functioning of individuals, groups and communities, to control and prevent such conditions that threaten effective and satisfying social functioning, and to conduct scientific investigation into the causes, treatment and prevention of social ills and to suggest suitable modifications in the existing social welfare, policies and programmes. Thus as Mr H M Kumarappa puts it "Modern Social Work adopts the constructive approach to social problems and seeks to provide permanent results of rehabilitation by eliminating the causes of social ill being".

Social Work A Profession

Like law, medicine and engineering, social work is acknowledged as a profession, alleviating the sufferings of mankind. It is a young profession in India. Professional social work confined itself to human relations and comprehensive knowledge of dynamics of human growth and behaviour may be expected to bring about the desired changes. In a way, the professional social worker is more concerned with alleviation of problems that are brought by psycho-social maladjustments and far less with the larger socio-economic issues of poverty, unemployment, under-employment, growth of services, social policy etc. To identify a delinquent, social workers find out the causes like broken home, socio-pathic father, parental negligence, association with delinquent gang etc., and suggest for proper corrective measures. Similar to other professions, social work also adopts the three major tools such as study, diagnosis and treatment. In advanced countries, this is privately practised, in India in metropolitan cities such as Delhi, Bombay, Calcutta, Lucknow,

Pune, Madras and Bangalore a few practising centres are functioning. P N Luther, observes "Social Work is more than a profession or a medium for earning and subsistence", since it belongs to those distinguished groups or individuals who have mission, an idealism, a missionary zeal and enthusiasm for helping human beings to achieve a high quality of life. Thus Prof T K Muthuvenkatraman also writes "Social Work not only calls for science and a system but also a proper combination and a blending of the questioning mind and the feeling of heart".

Development of Social Work

The need for professional education in social work was emphasized for the first time by Anna L Dawes at the International Congress of Charities, Correction and Philanthropy held in Chicago. In 1898 the New York Charity Organisation Society offered the first training programme of six-week duration. Later it was extended to six months, and developed into the New York School of Social Work and since 1940 affiliated with Columbia University. In India, the first educational programme in Social Work was established at Sir Dorabji Tata School of Social Work (later re-named as the Tata Institute of Social Sciences) by the Dorabji Tata Trust in 1936, through the work of Clifford Manshardt. It became a deemed university in the early sixties. In South India, the first institution was Madras School of Social Work. Social work education in India is forty seven years old. There are forty five institutions offering social work education in India. Eleven of these provide Ph D programme one of which also has a D Litt. One offers M Phil and Ph D programmes in Psychiatric Social Work (National Institute of Mental Health and Neuro Sciences, Bangalore). Four offer M Phil degree in Social Work and diplomas in social work after the bachelor's degree, and five offer Bachelor level programmes only. While Maharashtra (13) and Tamil Nadu (10) had cluster of institutions, states in the extreme north and north east such as Punjab, Jammu and Kashmir, Himachal Pradesh, Haryana, Manipur, Assam, Meghalaya, Mizoram, Nagaland, Tripura, Orissa and Bihar has no institutions. In Tamil Nadu, Madras School of Social Work at Sacred Heart College (Tirupathur), Stella Maris College (Madras), Loyola (Madras) under Madras University territory, Departments of Social Work at P S G College of Arts and Science (Coimbatore) and Ramakrishna Vidyalaya Arts College (Periyakan Palayam) in Bharathiar University territory, Department of Social Work at Bishop Heber College (Tiruchirapalli) at Bharathidasan University territory and Madurai Institute of Social Work in Madurai-Kamaraj University territory are

*Professor & Head, Deptt of Social Work, Institute for Social Sciences and Research, Vellore

offering M A Degree in Social Work In addition, the Heber Institute of Social Work at Tiruchirapalli offers two year programmes in Social Work (DSSA) for sponsored candidates from the dioceses of churches of South India, the department of Social Work at Institute of Social Sciences and Research (Vellore), offer two year Master programmes in Social Work (M S W) these two are Christian autonomous institutions and at present are not affiliated to any university

Social Work Curriculum

In the earlier stages, many institutions offered certificates and diploma courses in Social Work The Bachelor's degree level courses offered at few institutions are designed to train the students for grass-root level developmental programmes At present a vast majority of the institutions offer two year full-time Master level programmes (M A/M S W degree or D S S A/M S W diploma) The design of the Social Work syllabus is well planned to train the students in social work methods by providing them with an integrated scheme of class room instructions, field work experiences in social welfare agencies, social work camp, study tours, and social work research activities It equips young men and women with the necessary knowledge skill and techniques to deal with human problems to instill in them social and moral values to bring into focus their leadership qualities to acquaint them with the process of scientific enquiries into social problems etc

In post-graduate level of first year, basic subjects such as society, human growth and development, development of social work, and the methods, such as, social case work, social group work, community organization, social action and social work research (including elementary statistics) are taught In the second year, fields of social work, such as labour welfare, industrial relations and personnel management, correctional social work, school social work, social welfare administration, medical and psychiatric social work, community development, family and child welfare and family planning are taught In addition, a few schools are teaching the papers on "development of weaker sections", "Financial Management" and "Developmental Communication" Internal assessment has been in practice in schools of social work from times immemorial it is made by considering factors like regularity, sincerity, participation, matter content ability to tap the local resources, ability to differentiate between objective and subjective, transference and counter transference, maintaining confidentiality, ability to chalk out plans on his own accord, evaluation etc, the evaluation is hundred percent by the concerned teacher Now in many universities, in theory also, internal assessment system is working successfully Experience has shown that the internal assessment system is working successfully, it makes the students to work hard and thereby it makes them to know the subject in depth A vast majority of the post-graduate institutions offer specialisation in the fields of social work Six institutions offer generic courses

in social work In general male students take up social work course with the aim of becoming Labour Welfare Officer/Personnel Officer In India, at the present juncture, employment opportunities are more for those who take generic courses

Concurrent field work programme is an integral part of social work curriculum The field work programme provides varied experiences such as (1) to get an opportunity to test one's knowledge and acquire skills to apply it in a practical situation (2) to obtain the necessary service orientation and insight into the various agencies and their welfare services and (3) to seek new knowledge requisite for social work practice and render service to people These will deepen one's understanding of himself in relation to others and eventually to evaluate his behaviour and achievement Therefore, Prof T S Natarajan rightly puts it "concurrent field training is organised along-side the academic programme and in a real community situation to provide opportunities to students for (i) development of skills (ii) application of theory to practice (iii) development of proper attitudes and (iv) development of self reliance" In practice, to acquire such rich experiences, the students are placed in social welfare agencies such as children homes, blind rehabilitation institutions, deaf and dumb schools, homes for mentally retarded children, schools, industries, trade union offices, offices of the Government, Labour Welfare Officers, clinics, Nutrition centres, central jails, borstal schools, production departments, discharged prisoners' aid societies, slums, villages etc These experiences enable them "to learn by doing" and develop the needed social work skills and techniques to tackle human problems Recording of field work, experiences, weekly individual supervisory conferences, group conferences and seminars form part of the field work instructions Skills in interviewing others, ability to record factual and relevant material, skills in rendering therapeutic service etc are developed during the field programme

Functions of Social Work

Social work has identified three major functions such as remedial, preventive and developmental Although a number of its programmes and services are still geared along preventive and remedial lines the developmental function is germane to the developmental countries The aim is to promote and create those conditions which will enable people to become fulfilled human beings, in an atmosphere of social equity To achieve this objective social workers help people to participate in essential social work practices in India This is achieved by a combination of class room and field work learning experiences on a concurrent basis The guideline for the course is that of providing framework for study within which there is individual opportunity for individualization of the students learning potential and needs Their individual abilities and interests are stimulated by means of auxiliary readings, field work enriching experiences, tours, trips

audio-visual, extra-curricular and community responsibilities so that students are prepared for the multiplicity of experiences expected of them as practising social workers participating actively and fruitfully in such developmental programmes as community development, man power development, land reform etc. The new stress on the developmental function does not mean rejection of remedial and preventive ones. It merely serves notice that social work has enlarged the number of recipient of welfare services to include a large portion of the population, in order that they too may contribute to and enjoy the benefits from economic development. In fact the remedial and preventive approaches are integrated into developmental when in addition to meeting the needs of the traditional targets, population programmes and services are focussed simultaneously on the development of their social functioning in order to maximising their contribution to national development.

ASSWI

As regards to the development of social work education, the role of Association of Schools of Social Work in India (ASSWI) is commendable. It organises seminars for social work education and tries to review the social work curriculum. It has published nine books. It also releases a quarterly newsletter called 'Social Work Educator'.

Five Year Plans

The Sixth Five Year Plan indicates that the plan outlay for social work education and training for the periods (1974-79) and (1980-85) are 2 ul and 7 00 crores of rupees respectively, but the plan is not providing the information on the mode of expenditure. It is suggested that these grants should be channelled to schools of Social Work.

UGC Review Committee

In 1960 the University Grants Commission appointed the first Review Committee for Social Work Education and its report was published in 1965, the committee made important suggestions such as (1) need for training at matriculation and under-graduate levels to establish such full-fledged learning on the place of the existing ad-hoc programmes (2) The need for generic course in the first year and particular field in second year was suggested to balance the realities of job opportunities which required broad based social work training, with the development of field related training and (3) As regard to the faculty and student it should be 1 10 not including the Director/Principal/Head (4) Need for research by the faculty and (5) Channelling of grants directly from UGC. In July 1975, another committee was appointed. The report of their group published in 1980, which suggested that the Social Work must design a curriculum relevant to the type of manpower required in the areas of social realities of the country such as poverty, over population, illiteracy, malnutrition, low productivity, unemployment, underemployment and disabilities resulting from social and

economic inequity and the exploitation of the vulnerable and weaker sections of our society. Further it made the observation such as location of new institutions in ill-served areas; lopsided development of professional social work education at higher levels as against lower level for frontline workers; the need to reorient syllabi to review field work practice and to improve its content and methodology.

Conclusion

Professor M S Gore lists in his book titled "Some Aspects of Social Development" the functions of social workers to "identify the dysfunctional consequences of industrialisation, urbanisation and the rapid development of agriculture to institute services which will smoothen the change by providing rehabilitative, re-training and community support facilities, develop new services which will increase the utilisation of available social services in the areas of health, housing, education and population policy". The more specific tasks that the social worker portrays in connection with the developmental functions are influencing national priorities, utilizing the political process, interpreting social developmental goals, and helping those in need to execute these tasks. Social workers therefore, perform varying roles i.e. interpreter, spokesman, enabler, researcher, planner and organiser. Thus it is evident that social worker can contribute to a large extent to the development of the nation. Such a good and noble profession still seeks the recognition of people. □

FOR SALE

One Geiger Counting System (GCS 10B) with Decade Scaler (DS 325), High Voltage Unit (HV 200), Quenching Unit (PU 630), Pre-set timer (EI 453), Radio-active Shielding arrangement, Radiation Survey Meter (MR 120), Accurate Field Ratemeter (GM 105) and G M Detector (I-1030) for immediate disposal
For further details please contact

Commonwealth Institute of Biological Control

Indian Station
Post Bag 2484
Hebbal Agricultural Farm P.O.
Bangalore-560 024

Reference Works

that should be in every library. .

1	Encyclopedia of Architects (4 vols)	US \$ 395 00
2	Encyclopedia of American Forestry and Conservation (2 vols)	\$ 195.00
3	Encyclopedia of Bioethics (2 vols)	\$ 150 00
4	Encyclopedia of Crime and Justice (4 vols)	\$ 395 00
5	Encyclopedia of Educational Research, 5/e (4 vols)	\$ 395.00
6	Encyclopedia of Philosophy (4 vols)	\$ 285 00
7	Encyclopedia of Social Sciences with Biographical Supplement (9 vols)	\$ 475 00
8	Great Soviet Encyclopedia (31 vols)	\$1700 00
9	International Encyclopedia of Population (2 vols)	\$ 195 00
10	International Encyclopedia of Statistics (2 vols)	\$ 165 00

and now in press

ENCYCLOPEDIA OF WORLD RELIGIONS

For your requirements, please contact .

COLLIER MACMILLAN INTERNATIONAL
866, Third Avenue
New York, NY 10022
USA

or,

COLLIER MACMILLAN INTERNATIONAL
SURESH GOPAL
Resident Manager
65 Amrit Nagar
New Delhi 110003
INDIA

(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

Dr. Qasim Addresses Convocation of Annamalai University

Excerpts from the convocation address delivered by Dr. S.Z. Qasim, Secretary, Department of Ocean Development at the Annamalai University, Annamalainagar

" My first duty on this occasion which is a memorable one, is to offer my warm greetings and felicitations to all those who are receiving their degrees and diplomas today on successful completion of a very important and glorious phase of their lives. Many of you have now to face a transition from the process of learning and preparation for the examinations to a phase which requires action. First of all, I wish all of you good luck and success in life. My only advice is, whatever you do and wherever you go, never give up the process of learning. What I mean by the process of learning is, that, you should keep your eyes and ears always open. You must also remember that modesty and humility are the signs of greatness, not arrogance and obstinacy. You must also remember that you are the citizens of India, first and foremost, and then scientists, teachers, administrators, researchers or whatever you become later on. Therefore, all your actions must reflect on what you can give to your country. There is one more point which I think might prove to be useful to all of you and that is, your good public relations in future life. Never let your good relations with others deteriorate and never let your rapport with the general public become cold. As far as my experience in South India goes, I can say without hesitation, that the people of South India in general, and of Tamilnadu in particular, are polite, decent, unassuming, modest and God-fearing, and to these virtues they owe their success in most competitive examinations or in any field of activity. With these few words, I give you, the recipients of various degrees,

medals and other distinctions, my warm greetings and good wishes for a bright future.

'On an occasion like this, it is customary to take stock of the aims and objectives of higher education in the Universities, in the light of the future needs of our country. I wish therefore to utilize this opportunity to share my ideas with you, regarding the future trends in man-power-planning and marine-scientific-research in India. As one associated with the development of marine science in this country for more than 30 years, I consider it my professional obligation to allude to this field.

"Let me first of all explain what we mean by ocean development which is also the name of my Department. Since ancient times the sea has been used for two main purposes fishing and shipping. However the recent discovery of oil, gas and other minerals from the sea-bed, has convinced every one that some of the biggest treasures in the world lie hidden in the sea. In fact, whatever is found on land is also found somewhere in the sea, because it is the same land which extends under the sea. The only difference is that it has overlying water. We cannot see the land under the sea with our naked eyes, and yet we have to find the resources, the science of oceanography has thus become most exciting.

"Ocean development means knowledge of the sea resources, such as food, chemicals, minerals and energy, and their utilization for the benefit of our people. This would mean exploration of the sea and the development of technologies for the exploitation of its resources.

Exploration would involve new inputs like the availability of research vessels, institutional framework, infrastructure and shore-based facilities, while the development of technologies for the exploitation would require engineering inputs and new innovations, to tap the resources at a cost, which is competitive with the land-based resources. Both these components require trained manpower. In fact, manpower is the most crucial element in the development process.

"Today there are about 900 marine scientists in our country. With the arrival of the research vessel *Sagar Kanya* the demand on the existing manpower has increased considerably. Moreover another vessel (FORV), being built in Denmark is likely to join the existing fleet by September 1984.

Exploration of the Exclusive Economic Zone (EEZ) and the deep sea areas including the rich Antarctic seas, are of much interest to India, to meet the growing demands for food and minerals during the next two decades. Remote sensing of ocean parameters is another very promising area for development. Apart from the above activities equal emphasis has to be laid for the development of the centres of excellence in basic oceanographic research. It is therefore imperative to strengthen the much-needed research facilities in all the areas of ocean science and technology. Research and development activities in the field of ocean sciences would require at least 1000 additional competent scientists and engineers in the next 5-7 years. This additional scientific manpower will have to be supported by adequate infrastructure and shore-based facilities. This would mean that we must have manpower-planning for at least 100 to 150 scientists per year. The time is now appropriate to give serious thought to the development and training of manpower in highly diversified fields of ocean science and technology in our country.

"Two methods are being tried for developing and increasing the trained manpower by the Department of Ocean Development. In implementing both these methods, the basic opportunities in universities and technical institutions are also being strengthened. The first is the inhouse training, and the second is the award of fellowships and research associateships. The former is undertaken in different types of institutions. Organisations like the Council of Scientific and Industrial Research (CSIR), Indian Council of Agricultural Research (ICAR), Ministry of Agriculture, the Geological Survey of India (GSI), Indian Navy and Merchant Navy will be used for the inhouse training to suit specific requirements. No matter where the R&D programmes are undertaken in ocean science and technology, the utilization of ship-board facilities and orientation courses in ocean science will be the most important component.

"There are several institutions and universities in the country which can take up training programmes. At the same time many universities and IIT's have started new programmes in ocean science. But to meet the required number during the next few years, training in ocean science will have to be increased in all the institutions which are interested in marine science. The Department of Ocean Development has provided extra positions of scientists and technicians in several institutions during the year.

"The second method has been the award of fellowships and research associateships to about 125 persons per year in different centres, universities and central organisations, which are involved in marine oriented work. The fellowship scheme has certain distinct advantages as no major institutional set-up is required for this purpose. The scheme for the award of these fellowships has to be more broad-based covering the entire country. The existing centres

of excellence can be used to take on new fellowships in specialised branches of marine science and technology. One of the goals of this method has been to develop a reservoir of young scientists, with Ph.Ds and Master degrees in different fields, wherefrom they could be drawn, as potential future marine scientists, in specific mission-oriented work on research vessels, in the Exclusive Economic Zones, deep sea and the Antarctic programmes. Another advantage of such a reservoir of scientists is, that they have their roots in those institutions from where they are drawn for specific work so that they can continue to carry out their investigations in the parent institutions.

"Both the methods are being implemented by my Department and the response towards the fellowships and research associateships scheme from various institutions has been extremely encouraging and enthusiastic. Many fellows and research associates are already in position.

"The earliest universities to start marine science courses were fittingly the two of the oldest universities in our country, namely, Bombay and Madras. In 1927, the Zoological Research Laboratory of the University of Madras was established with Prof R Gopala Ayyar as its Honorary Director. The main objective of this research laboratory was to promote research in tropical marine biology and to provide training in basic zoological research. At about the same time, teaching and research in marine biology were initiated by Prof P R Awati, at the Royal Institute of Sciences, Bombay. The Taraporewala Marine Biological Research Station, affiliated to the Bombay University, started functioning in 1951. This fine aquarium, with living marine forms, contributed immensely in generating public interest on marine life in the country. Pioneering work was carried out by these two insti-

tutions in various fields of marine biology. Studies included plankton biology, fouling organisms and molluscs, various types of fishes and a variety of other fauna and flora. Although some work on physiological aspects still continues at the Madras University, all activities at the Bombay University came to an abrupt end in mid-sixties.

"At Waltair, on the east coast of India, the Department of Zoology of the Andhra University was established in 1947, for teaching and training at the postgraduate level with specialization in marine biology and to carry out fundamental research in this field. In 1949, oceanography and meteorology were also taught at the Department of Geophysics, Waltair. Teaching and research facilities became available in the field of marine geology under a separate Department of Geology. In 1952 the University initiated what could be regarded as the first concerted effort to carry out multidisciplinary oceanographic research in India, especially in off-shore waters. So far, the oceanographic studies were largely restricted to the coastal areas and the work carried out was mostly biological in nature. The early emphasis on marine biological research could be attributed to

- (a) the growing need for the exploration of living organisms and the optimum exploitation of marine food resources,
- (b) the relatively simple and inexpensive apparatus required for marine biological work, and
- (c) the availability of trained personnel in marine biology to carry out such work.

"In 1953, the Annamalai University set up a Marine Biological Station at Parangipettai, with Prof R V Seshaiya, as its Director. Prior to that, the research work in marine biology in this University was carried out in the Department of Zoology. In 1962, the University chang-

ed the status of the station to a Department of Marine Biology, and in 1963, the University Grants Commission recognised this department as a Centre for Advanced Study in Marine Biology, which serves now as an all India institution Enjoying close links with some of the British Institutions of marine sciences (Universities of Southampton and Aberdeen), it has several useful bilateral exchanges of scientists with these institutions Commendable researches on various aspects of marine sciences are being carried out by this centre in the Vellar estuary in the surrounding back waters, mangroves and in the Bay of Bengal These include hydrographical and hydrochemical studies in the estuarine and near shore waters, microbiological studies, mangrove ecosystem research, studies on primary production, plankton studies, taxonomical and ecological studies in molluscs and fishes, estuarine biology and biochemical studies on marine organisms

"The location of this centre at Parangipettai offers a wide range of excellent opportunities for estuarine and marine biological research The area is also interesting because of the presence of the mangrove forest at Pichavaram The main thrust areas for research of the Centre at present are coastal water-quality-assessment, pollution-monitoring, environmental-inventory and toxicological studies microbial biodegradation and decomposition in the marine environment, ecosystem analyses with special reference to mangroves, estuaries and swamps along Tamilnadu coast systematics, ecology, breeding biology and laboratory culture of coastal marine fish and shellfish and their larvae The fact that during 1980-83 37 candidates have earned Ph D degrees in this Centre is a very impressive record of performance The Centre has also been publishing a large number of original papers every year

"From the foregoing account, it is clear that very useful

and pioneering contributions have been made by the Universities in various disciplines of oceanography, before the research institutes such as the Central Marine Fisheries Research Institute (CMFRI) and the National Institute of Oceanography (NIO) were established in the country Coastal and estuarine regions, in the proximity of several of these universities, were intensively investigated and many interesting oceanographic features became known as a result of their efforts Fundamental work on the fauna and flora along the Indian coast was done at the universities and many new species, which were not known before were discovered Some of the universities participated actively in the International Indian Ocean Expedition (IIOE), 1962-65

"In addition to enhancing our knowledge of the Indian sea the universities have made the most vital contribution by providing trained manpower which has put the country on a sound footing for the development of marine science Cochin and Andhra Universities have introduced specialised courses leading to postgraduate degrees in the fields of physical oceanography, marine chemistry, marine geology and marine geophysics By doing so they have ensured, that trained persons required by the various research institutes and fisheries organisations, are continuously made available Thus a very close link exists between the universities and the research institutes as many of the scientists working in the institutes register themselves for higher degrees at the universities It can, therefore, be concluded that the role of universities in the development of marine sciences has been enormous

"In recent years, the Department of Ocean Development has started three new projects The Antarctic research, exploration of polymetallic nodules and extraction of energy from the sea In the Antarctic Re-

search, as you are aware, the third expedition has already landed and this team contains several scientists from the universities This programme has ushered in a new era of polar research in our country, which, above three years ago, was non-existent Today, there are 20 institutions or more in the country which are working on the data and material collected from the Antarctic water and from the frozen continent of Antarctica In the programme on exploration of polymetallic nodules nearly 100 scientists, engineers and technicians from nearly 15 institutions in the country are involved This is the largest team that has ever been deployed anywhere in the world and the technology used is not only on par with that of the most developed countries in the world but in certain respects even superior We are transmitting the coded data from the Central Indian Ocean, continuously to the National Institute of Oceanography Goa In the project

'Energy from the Sea' the Indian Institute of Technology Madras is playing a key-role and the facilities and manpower developed by them on wave energy are indeed highly commendable

"Mr Chancellor, Ladies and Gentlemen in the short time at my disposal, I have tried to summarize the role of the Universities and that of a few other institutions in building up the much-needed manpower requirements of our country in the ocean sector However, I must confess that despite these praiseworthy efforts, there is a lot to be done in future, so that the Indian Ocean, which has been washing the shores of our country, since millions of years, will play an important role in the technological development of the country in such a way, that, the sea will continue to provide our social, economic and recreational needs for a long time to come In this process, I am sure, the role of the Annamalai University will become more and more important in future "

Seminar on Management Concepts for Higher Productivity of Educational Institutions

The Centre for Management of Productivity, Bangalore in association with Rashtreeya Sikshana Samithi Trust, also at Bangalore, proposes to organise a 2-day National Seminar on 'Management Concepts for Higher Productivity of Educational Institutions' on 14th and 15th April 1984 at Bangalore. Delegates to the seminar would be those concerned with the management of societies and trusts managing higher educational institutions, principals of the colleges, deans, departmental heads, registrars and their deputies and functionaries concerned with administration of academic and research institutions, etc.

The seminar is being organised against the background of the metamorphosis that has come over the educational scene in India over the years and the widely held belief that the existing pattern of education is irrelevant and dysfunctional to the needs of society. For educational institutions to be more effective and efficient, the Centre feels that it would be necessary that efforts are made for increasing their productivity. Improved productivity and excellence in education, the centre feels, is possible by the application of concepts and principles of modern management.

The seminar would highlight the challenges and emerging trends in higher education and focus on the problems arising therefrom of sponsoring organisations. It would also stress the need and urgency for professionalisation of management in societies etc managing educational institutions besides contributing to develop awareness and understanding about application of modern management concepts and techniques for improving educational productivity.

Prof V V John, former Vice-Chancellor of Jodhpur University is expected to inaugurate the seminar. Amongst those likely to address the different sessions of the Seminar are Prof K S Hegde, VC, University of Mysore, Dr D M Nanjundappa, VC, Karnataka University, Prof N S Ramaswamy of IIM, Bangalore, Shri Sharu Rangnekar, Member, Board of Governors, NITIE and Dr K Pennathur.

Panjab Varsity conference of principals, programme officers and youth leaders

Prof R C Paul, Vice-Chancellor Panjab University, stressed the need to bring about radical changes in the text-books in our schools, colleges and universities in order to ensure that every student received a fair idea of the country. He said that efforts should be made to narrow down the gaps in the educational levels of different areas and segments of our society. There should be reassessment of India's history and heritage with a view to project the forces of integration inherent in our cultural heritage.

Prof Paul made these remarks while inaugurating a 2-day Conference of the Principals, Programme Officers and Youth Leaders organised by the NSS Department of the University.

Prof Paul suggested that it should be impressed upon every individual that violence had never solved any problem. On the contrary it had aggravated the gravity and complexity of the problems. Holy books and places of worship, irrespective of caste, creed or colour, deserve to be held in highest esteem and the very thought of their sacrilege must be shunned as abominably ignoble.

Mr Gurdev Singh, Programme Coordinator, said that in each college a 'Task Force' was being set-up to under-

take Programmes in emergencies like theft, fire and protection of national property. The members of the task force would be expected to report at the scene of the accident immediately and try to help the people in distress in every possible way.

All India Hindi seminar at Gauhati University

An All India Hindi Seminar sponsored by UGC was held for four days from 28th Nov to 1st December 1983 under the auspices of Hindi Department of Gauhati University on the subject "An exploration of Non-Vaishnavite trends in Medieval Hindi Bhakti Literature".

The programme of the Seminar was divided into six working sessions besides an inaugural function in the beginning and a concluding session in the end.

Dr S D Singh, Prof & Head of the Hindi Department Gauhati University and Director of the seminar has informed that all the sessions were thought-provoking supplemented by thorough research of the materials and its interpretations. Some of the papers explored new areas and dimensions of Non-Vaishnavite trends on the abovesaid subject. For instance Prof S K Mishra (Sardar Patel University) threw new light on the definition and characterization of Vaishnavite and Non-Vaishnavite trends, Prof R M Tripathy (Vikram University) on Sufi literature, Dr P Rai (Magadh University) on Saint Literature, Prof Jagadish Gupta (Allahabad University) on Krishna Literature and Prof R K Megh (GND University) on Rama Literature. Prof Megh also emphasized the need for utilizing the archaeological material as well as material obtained from paintings, sculptures etc. The inaugural address was given by Prof M Neog and presided over by Dr B K Bhattacharya. The concluding session was addressed by Dr J M Choudhury, Vice-Chancellor of Gauhati University.

Under each session, one major research paper was presented followed by a number of subsi-

diary papers and thorough discussions

It was agreed upon that influences of Siddha's (Buddhism), Natha's, Shaiva's, Shakta's and Islam were to be thoroughly explored in various forms and shades along with other minor influences in the broad context of the developments of Indian culture

A VC's get-together for students' union office bearers

Mr Syed Hashim Ali, Vice-Chancellor of Osmania University, asked the students to work hard to regain the prestige and academic excellence which the university enjoyed as a pioneering institution. He said only hard work and discipline can make the students worthy and responsible citizens.

Mr Syed Hashim Ali was addressing the Students' Union office-bearers of the Campus and Constituent Colleges of Osmania University at a get-together in the Vice-Chancellor's Lodge. While congratulating the students for conducting elections in a peaceful manner, he said students were welcome to meet the officials and discuss their problems in small numbers but not in mobs. He said all problems should be solved at the college level with their concerned heads, Principals and Deans. He said, to meet the growing needs of the teachers, staff and students, the university was thinking of starting a Development Fund with contributions from former students, staff and philanthropists.

He said the students should explore their latent talents in extra-curricular activities like debating, music, drama and sports. He said many students did not know their full potential and were not fully utilising their capabilities.

The Vice-Chancellor asked the students to take up constructive activities. He asked the students to clean the walls and college buildings and promised to white wash the buildings after they were cleaned. Some college office-bearers offered to take up this project immediately.

Prof T Navaneeth Rao, Rector, Prof P S Ramachandran, Registrar, Principals of the Colleges and students' union advisers were present.

Poetic symposium on communal harmony

A poetic symposium on communal harmony was held at the Punjab Agricultural University last week. This symposium was organised by the Punjab Agricultural University Teachers' Association PAU non-teaching workers' union, PAU young writers association, Guru Gobind Singh Study Circle, Directorate of Students' Welfare and various cultural bodies of the University.

Dr Sukhdev Singh Vice-Chancellor of the PAU who presided over the function said that no religion had ever preached hatred among the people. He further said that religious tolerance should be given preference in every walk of life. He cautioned the students and the staff to beware of the divisive forces which were bent upon disintegrating the country.

Bibi Amar Kaur Sister of Shahid e-azam Bhagat Singh speaking on this occasion appealed to the students to save-

guard the hard won freedom and reminded them of the sacrifices made by the great martyrs for the liberation of the country.

U.S. envoy visits Cochin University

The American Ambassador to India, Mr Harry G Barnes Jr visited the Cochin University recently and he had detailed discussions with the Vice-Chancellor Dr K Gopalan, and other officials on the various academic and research programmes of the University.

The Ambassador also visited some of the laboratories and showed keen interest in the research and development work going on in them. Several members of the faculty of the University had worked in American Universities and there were informal linkages between some of the American Universities and Cochin University in several emerging areas of science and technology. The Ambassador agreed that these linkages could be formalised with a view to make such collaboration more meaningful and purposeful. He assured his full support for bringing about such formal linkages in emerging areas of mutual interest.



Mr Harry G Barnes Jr. (right), US Ambassador to India, with the Vice-Chancellor of Cochin University.

Course in Indian languages at TU

The Tamil University plans to conduct a four-week intensive course in Kannada and Marathi at the Postgraduate level from 2nd April to 28th April, 1984. A certificate will be awarded to the successful candidates who will have to pay a sum of Rs 100/- as tuition fee and a sum of Rs 25/- as examination fee. Further information can be had from Dr S Rajaram, Associate Professor, Department of Tamil Studies in Foreign countries, Tamil University, Thanjavur.

College teachers' research council formed

The first convention of the Assam College Teachers' Forum

for Research Activities was held recently at Gauhati under the presidency of Dr B C Lahkar, Principal, Gauhati Commerce College.

The convention resolved to form a State level organization of College teachers engaged in research activities under the name 'The College Teachers' Research Council Assam'. The aims and objectives of the Council include (a) to strive for and contribute towards the development of research activities among the College Teachers of Assam vis-a-vis the Region, (b) to work for providing necessary research facilities in the affiliated colleges, (c) to help the development of group and interdisciplinary research, (d) to strive for achieving due status for its members in the society.

IIT Kanpur to celebrate silver jubilee year

The Indian Institute of Technology, Kanpur has designated the period from August 1, 1984 to July 31, 1985 as its Silver Jubilee Year. A series of events has been planned. These would include a travelling exhibition of achievements by its alumni, special symposia of interest to industry and alumni, special lectures, special convocation, institution of awards for distinguished alumni, etc.

Prof A S Parasnis, Professor of Physics and Chairman, Silver Jubilee Committee IIT, Kanpur would welcome contact from alumni and their parents, interested industries and well-wishers.

CALENDAR OF EVENTS

Proposed Dates of the Event	Title of the Conference Seminar Symposium Workshop	Objective	Name of the Organising Department	Name of the Organising Secretary Officer to be contacted	Remarks
March 21-22, 1984	Kisan Mela	Theme will be 'Management in Agriculture'	Punjab Agricultural University Ludhiana	—	A large number of farmers and farm women from Punjab and adjoining States are expected to participate
March 28-31, 1984	Indian Music and Philosophy: Inter-relationships in Concepts	To examine the common concepts in Indian Music and Philosophy	Faculty of Performing Arts BHU, Varanasi	Prof (Smt) N. Rajam Director & Dr (Smt) Vinila Musalgaonkar Convener	—
April 14-16, 1984	National Conference on "Towards a Learning Society Through Life-long Education"	Intended to provide a blend of academic content and experiential learning	Indian Society for Community Education Ahmedabad	Dr Y N Mishra Conference Secretary Centre of Adult/Continuing Education, BHU Varanasi	—
May 2-9, 1984	Third Training Programme on 'Manpower Forecasting'	Aims at imparting knowledge to those responsible for manpower assessment and planning at the national, state, district and organisation levels about the basic approaches and techniques involved in manpower forecasting	Institute of Applied Manpower Research, New Delhi	Dr D D Upadhyay Sr Research Officer, IAMR New Delhi	—
June 11-16, 1984	Short Term Course on Digital Image Processing (Sponsored by the Electronics Commission)	To provide an introduction to the basic concepts and techniques for digital image processing and to lay a foundation which can be used as the basis for further study and research in this field	Department of Electronics and Electrical Communication Engg., IIT, Kharagpur	Prof B N Chatterji & Dr R N Pal, Coordinators	—

Cochin University identified for computer education pilot project

The Government of India has identified Cochin University as one of the back-up institutions to participate in the computer education pilot project launched by it

The project aims at imparting computer literacy at school level To begin with the project is to be taken up on a pilot basis in 250 schools all over the country In the pilot stage, the objectives of the project will be limited to imparting computer appreciation-cum-education to secondary school students The existing teachers of physics chemistry, mathematics and commerce will be given suitable training for implementing the programme in the schools

For each cluster of schools a back-up institution has been identified by the Government of India for providing logistic, academic and teacher training support Cochin University has been chosen to service a cluster of 10-20 schools in the State The project will be implemented by the University's Department of Electronics

Home nursing camp for girls at Bhavnagar University

Recently, from 5 December to 12 December a home nursing camp was held in Sir P P Institute of Science, Bhavnagar University, under the auspices of NSS Unit of the University, with the aim of training the college girls in home nursing i.e first aid, mothercraft and hygiene etc 150 participants in the camp were taught the above by Padmashri Bakulaben Patel of St John Ambulance Association (Gujarat State Centre) Delhi The girls were demonstrated different types of bandages, artificial respiration, structure formation etc They later visited government hospital for practical experience Besides maintaining their own homes well in future these trained girls will be of great help in the event of natural calamities (floods cyclones etc), wars and the accidents,

Social worker and doctor Smt Bhanuben Parekh inaugurated the function Dr Bharatbhai Trivedi was guest of honour and the closing ceremony was done under the chairmanship of Smt Ushaben Patel

Maharashtra State to review education policy

The Education Minister of Maharashtra, it is reported has stated that the Government of Maharashtra would overhaul its education policy A Committee headed by the State Education Minister has been appointed to prepare a blueprint for this purpose The report of the Committee is expected to be ready by the end of this year

The Committee which would include eminent educationists, would review the education policy from primary to university level and prepare a master plan for implementation during the Seventh Plan period which begins from April, 1985

Report of Parliament Committee on welfare of SC/ST

The Committee on the 'Welfare of Scheduled Castes and Scheduled Tribes' of Parliament has, it is reported, made, *inter alia*, the following observations

* It has reiterated that the Aligarh Muslim University

should, as done by other universities, provide 15 per cent reservation for Scheduled Castes and 7½ per cent reservation for Scheduled Tribes students for admission to the MBBS Course The Government of India has been asked to pursue this matter in right earnest

- * The Committee has said that it is unable to understand as to why in the Delhi University, reservations in post-graduate courses for SC/ST students will be available only when the number of seats is more than seven The Committee wants the Government to ensure that the reservation orders are followed irrespective of the number of seats
- * The Committee has recommended to the Government to take a decision to provide reservations for SC/STs in the Indian Institutes of Technology in teaching and technical posts at all levels
- * In cases where separate admission tests are held and SC ST students are required to pass the same for getting admission, necessary relaxation in marks should be given to them so that the seats reserved for SC/ST students are filled up

AIU News

Display of AIU Publications

The Association of Indian Universities (AIU) has a number of publications in the field of higher education These are popular among the academics, researchers, students and others connected with higher education AIU displays publications at special functions of universities like jubilee celebrations, international/national conferences, workshops/convocations, book exhibitions etc In the immediate past AIU has organised displays at the following universities

- 1 Gulbarga University, Gulbarga
- 2 Indian School of Mines, Dhanbad
- 3 Rani Durgawati Vishwavidyalaya, Jabalpur

Universities who wish AIU to display publications may please write to the Sales and Publications Officer, Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-110002

GDR ready for further collaboration with Cochin University

His Excellency Mr Heinz Birch, Ambassador of the German Democratic Republic in India who visited Cochin University on February 10, stated that the GDR would be ready to consider the next phase of collaboration between Rostock University and Cochin University in the area of Ship Technology and Naval Architecture.

The GDR Ambassador visited the Department of Ship Technology and had discussions with the Vice-Chancellor Dr K Gopalan and other officials of the University. The Ambassador showed particular interest in some of the major ongoing research projects in the Department in the area of Computer aided ship design and Non-linear analysis of ship structure strength.

The collaboration between Rostock University and Cochin University in the area of ship technology started about 10 years ago. The Cochin University is one of the very few centres in the country producing ship technologists and naval architects. The University has plans to start an M Tech programme in Ship Technology and Naval Architecture.

Osmania Varsity's Newsletter

Shri Syed Hashim Ali, Vice-Chancellor of Osmania University, Hyderabad has, in a communication, stated that a monthly Newsletter addressed to the students by him has been started in the university. The object of the Newsletter is to develop better rapport between the students and the university authorities. Two Newsletters have been published so far.

Surendra Nath Barua memorial cricket tournament

Recently Gauhati University Teachers' Association (GUTA) organised a cricket tournament amongst the college and university teachers of Gauhati Uni-

versity in the Gauhati University Sports ground. The trophy was donated by Dr (Mrs) A Barua, in memory of her departed husband, Late Surendra Nath Barua, who was a sportsman and was actively associated with sports and games of Gauhati University.

Altogether eight teachers' teams joined the tournament.

In the final match B Barua college defeated Veterinary College by 7 wickets and won the Memorial trophy.

Plan Outlay on Education

The Plan Outlay on Education for the year 1984-85 as revealed in the Budget Estimates presented to Parliament on 29th February 1984 is as follows: Centre Rs 203.65 crores. States Rs 554.39 crores, Union Territories Rs 73.22 crores Total Rs 831.26 crores.

Seminar on aspects of history and culture

The Faculty of History and Archaeology of Besant Theosophical Post-Graduate College, Madanapalle (Andhra Pradesh) organised a two day seminar on Aspects of History and Culture, as a part of COHSSIP of UGC. The Director of the Seminar was Prof S Sripathi Naidu.

The seminar was inaugurated on 25th Feb 1984, and the keynote address was delivered by Dr. Alladi Vaidehi, Professor of History, Osmania University, Hyderabad, who emphasised the need for a study of the cultural aspects.

In the afternoon session four papers on various temples were presented.

On 26th February 1984, papers were presented on Indian coins through ages, Mughal History, Mughal Art and Architecture.

News from April Volumes

Farm business management course inaugurated

Dr Sukhdev Singh, Vice-Chancellor of the Punjab Agricultural University said that the farmers should learn to keep the accounts of their income and expenditures as agriculture had become a business rather than simply a way of life. He further said that despite increase in the income of the farmers as a result of green revolution the standard of living in the villages had not improved much and rural houses still lacked basic amenities of life. Dr. Sukhdev Singh called upon the educated rural youth to start other profitable professions like poultry farming, dairying and mushroom growing to supplement their income.

The Vice-Chancellor was inaugurating the first three month training course in agricultural business management being organised by PAU. The training which is being jointly organised by the Departments of Business

Management and Extension Education of the PAU is being attended by 25 educated farmers.

The Vice-Chancellor said that apart from this training the trainees should also be acquainted with the working of Government and Semi-Govt agencies and Commercial Banks involved in the Rural Development Programme.

HAU working to be reviewed

A review of the working of different departments of Haryana Agricultural University (HAU) has been planned with a view to identifying the deficiencies keeping in view the best available expertise in the country', said Mr L D Kataria, Vice Chancellor, HAU while addressing a press conference at Hissar recently. He said, "this is being done to chalk out a phased, time-bound programme for achieving required excellence wherever such deficiencies exist".

Shri Kataria further disclosed that for fuller utilisation of man-

matter and material resources available in the University, it has been decided to review the ongoing research programmes of different schemes

"This, he said, 'is all the more necessary when projections for the seventh Five-Year Plan are being finalised so as to cover the existing deficiencies, if any and to give greater thrust to the areas which required immediate attention. Screening efforts in this direction would obviously help in eliminating unproductive schemes, he added.

Shri Kataria, who assumed charge recently, said that he had decided to have a status paper prepared on various achievements in the fields of teaching, research and extension education so as to have a realistic assessment of the excellence attained so far. It is necessary at this stage to have an indepth assessment of the relevance of these achievements in relation to the required needs for the agricultural development of the State as a whole.

In an answer to a question regarding the extension services of the University he said that in order to transfer speedily and more effectively the new technology to the farmers the District Extension Specialists meant for the purpose need to be periodically up-dated in their knowledge by evolving a system of built-in training programmes in their related fields.

The University he said, would lay special emphasis on the 20-point programme for the upliftment of the marginal and landless farmers.

He also proposed to intensify research efforts relating to socio-economic needs of the farming community in the State. Multi-disciplinary programmes involving faculty of home science, basic sciences, agriculture, and animal sciences, will have to be initiated to have indepth evaluation of the socio-economic constraints so that the concerned departments of the State Government can be approached for tackling the problems in a multi-dimensional way.

News from Abroad

Strong demand for university places in Australia

Very strong competition for places in all Australian universities in 1984 was reported at a meeting of the Australian Vice-Chancellors' Committee held at the University of New England recently.

"Thus strong demand emerging for university places represents a marked change in the aspirations of young people compared to those several years ago and is indication of a keen interest in university education", said the chairman, AVCC, Professor Michael Birt.

At the request of the Australian Government, the universities have increased opportunities for school leavers. The universities have, however, been forced to set intake quotas which are limited by their available money and buildings.

In many instances, the numbers of qualified applicants have exceeded significantly these intake quotas. For school leavers, the minimum cut-off scores to secure entry have risen sharply compared to the corresponding situation in 1983.

Projected total enrolments in most universities will exceed their planned student loads for the current 1982-84 triennium. This has been caused by a continuing shift of students to full-time enrolments, the greater retention of later-year students in undergraduate courses, together with increased participation in postgraduate and research-degree programmes. More universities have now been forced to impose limitations on their intakes of higher degree students.

[Courtesy Media Release of Australian Vice-Chancellors Committee]

Sports News

Sports Authority to get Rs. 4 crores

Sports Authority of India, a newly created organisation, would get a grant of Rs 4 crores, according to the budget proposals of the Department of Sports for the year 1984-85. The plan allocation for Sports in the Central budget is Rs 8 crores for the year 1984-85. The Centre has proposed Rs 26.05 crore budget for the Sports Ministry for the year 1984-85. This represents an increase of Rs. 6.72 crores over the previous year.

Three new events likely in Seoul Asiad

The Seoul Asian Games Organising Committee has decided the dates for holding the 10th Asiad in 1986 to be held from September 20 to October 5.

The Organising Committee also prepared the schedule for the games which will be presented in September for approval to the Olympic Council of Asia. The Committee has included three additional events—Bowling, Taek-Wondo and Judo—to the list of events staged at the 1982 Asiad in New Delhi. This will bring the total number of events to 25.

AIU Library

Established in 1965, the AIU Library has acquired over the years a valuable collection of books and documents on Higher Education. Among the topics prominently represented are Educational Sociology, Educational Planning, Educational Administration, Teaching & Teachers' Training, Examinations, Economics of Education and Country Studies. Developing fields of Adult Education, Continuing Education and Distance Education, and Educational Technology are also well stocked. The Library is particularly strong in its collection of reports whether they are on the setting up of different universities or on the state of Higher Education. Files of Annual Reports of different universities are also maintained. Readers are kept informed of the latest acquisitions through our column 'Additions to AIU Library'.

The Library also receives about a 100 periodical titles on Higher Education. All these are indexed regularly and a select list appears every month as 'Current Documentation in Education'.

Doctoral Degrees awarded during the preceding month are reported as 'Theses of the Month' while registrations made for such degrees are flashed as 'Research in Progress'. Bibliographies are also compiled and supplied on demand.

Research scholars and students of education are welcome to use these resources. The Library is situated at 17-B, Indraprastha Marg, New Delhi-110 002. It is open from 10 a.m. to 5 p.m. Monday through Saturday except Second Saturday. Access can also be had through inter library loan for which requisition must be made through your Librarian.

RESEARCH IN PROGRESS

A list of Research Scholars Registered for Doctoral Degrees of Indian Universities

PHYSICAL SCIENCES

Statistics

- 1 George, Sabu *Stable stochastic process and applications* U Ker, Trivandrum Prof R N Pillai

Physics

- 1 Ferdinand, K V *Electron transport properties of compound semiconductor thin films* U Delhi Dr P C Malhotra

- 2 Gaur Archana *High energy interactions* U Delhi Dr R K Shivpuri

- 3 Harinder Singh *Plasma physics* U Delhi Dr K L Vithal

- 4 Kapoor, Vijay *High energy physics* U Delhi Dr R K Shivpuri

- 5 Kumar Sanjay Krishna *Mossbauer studies of ferrites and thin film phenomenon* U Delhi Dr J S Baijal

- 6 Pahwa, Des Raj *Acoustic sounding and environmental studies* U Delhi Dr S P Singal and Dr A P Mitra

- 7 Parthasarathi Kumar *Non-perturbative methods in atomic and molecular physics* U Delhi Dr R P Saxena

- 8 Parvisha, Anita *Study of materials for new applications* U Delhi Dr Abhai Man Singh

- 9 Rajaram, B M *Semiconductor material technology and particle interactions with semiconductors* U Delhi Dr R K Shivpuri

- 10 Sakseena, Purnima *Non-linear plasma theory Laser, plasma interaction* U Delhi Dr M P Srivastava

- 11 Sharma, Kishori Lal *Nuclear structure of some medium heavy nuclei* U Delhi Dr J B Gupta

- 12 Sharma, Satendra *Study of nuclear structure of some medium mass nuclei* U Delhi Dr J B Gupta

- 13 Sinha Kumar Virendra *Scattering of electrons and positrons from gases* U Delhi Dr P S Grover

- 14 Sinha, Manoj Kumar *Investigation of hyperfine fields in rare-earth nuclei by time differential PAC method* U Delhi Dr S L Gupta

Chemistry

- 1 Anil Krishan *Theoretical chemistry* U Delhi Dr K K Sharma

- 2 Bhalvankar, Ramachandra Bhagwan *Kinetics of some catalysed reactions* Shivaji U Dr N G Zunjurwad

- 3 Chauhan, Virender Singh *Studies on glycosidic principles of indigenous drugs* HS Gour Dr G C Jain

- 4 Gaikwad, Hemlata Chandrashekhar *Reversed phase paper chromatographic studies with aliquot* Shivaji U Dr V M Shinde

- 5 Gautam, Rakesh *Studies on the toxic constituents of Euphorbia drugs* HS Gour Dr D K Mukharya

- 6 Gupta, Rakesh Kumar *Phytochemical investigation of some indigenous medicinal plants* HS Gour Dr V K Saxena

- 7 Nirmala, P *Organic chemistry of natural products* U Delhi Dr A C Jain

- 8 Parida, G R *Electrochemistry* U Delhi Dr N R Banerjee

- 9 Sajadian, Sayed Kumar *Bisplanar heterocyclic compounds* U Delhi Dr S V Eswaran

- 10 Sharma, Ram Rattan *Organic compounds of metals* U Delhi Prof R N Kapoor

Earth Sciences

1. Singh, Pradeep Kumar *Depositional sedimentary environments* U Delhi Dr D M Banerjee

Engineering & Technology

- 1 Tara Singh *Studies on non-edible oils* BHU, Varanasi Dr A N Srivastava and Dr D C Rupawar

BIOLOGICAL SCIENCES

Botany

- 1 Bajaj, Madhu *Reproductive biology* U Delhi Dr K R Shivanna

2 Basu, Atanu *Photobiological aspects of plant growth and development* U Delhi Prof S C Maheshwari and Dr A Rashid

3 Dantu Prem Kumar *Morphogenetic study in angiosperms* U Delhi Dr Sant S Bhowani

4 Gaikwad, Sanjay Ganapat *Physiological studies in mullets Setaria italica (L)* Beauv Shivaji U Dr B A Hegde

5 Kapoor Seema *In vitro morphogenic studies in angiosperms* U Delhi Dr S C Gupta

6 Kapoor, Shama *Embryology of angiosperms* U Delhi Dr S P Bhatnagar

7 Mulik, Niranjan Gopalrao *Studies on some aspects of mangroves* Shivaji U Dr (Smt) L J Bhosale

8 Nanda Kumar P B R *Reproductive biology of angiosperms* U Delhi Dr K R Shivanna

9 Verma, Bharti *Histochemistry and ultrastructure of some food legumes* U Delhi Dr C B Sehgal

10 Yunus Ali *Plant physiology and biochemistry* U Delhi Dr S C Maheshwari and Dr A Rashid

Zoology

1 Anand Kumar *Insect reproduction* U Delhi Dr S S Sehgal

2 Bijay Kumar *Microbial insecticides interactions* U Delhi Dr D M Saxena

3 Manoj Kumar *Studies on the biochemical aspect of ageing in flesh fly* HS Gour Dr G C Jain and Dr U S Gupta

4 Samuel, D *Studies on the helminths parasitic in anamniotes of Kerala and Kanyakumari District* U Ker, Trivandrum Dr P V George

5 Srivastava, Anita *Entomology* U Delhi Prof M K K Pillai

6 Urfi, Abdul Jamil *Histophysiological studies on fish muscle* U Delhi Prof C L Talesara

Medical Sciences

1 Mukherji, Gour *Development of drug delivery systems using anti-cancer drugs* U Delhi Dr G K Narayanan

2 Ravi Chandran, T K *Development of pro-drugs of benzodiazine diuretics* U Delhi Dr G K Narayanan

3 Tiwari, Anil Kumar *Physiological studies on lens with particular reference to cataractogenesis* BHU, Varanasi Prof H V Nema

THESES OF THE MONTH

A list of Doctoral Theses Accepted by Indian Universities

PHYSICAL SCIENCES

Mathematics

1 Bathul Shahnaz *Three dimensional flows and heat transfer over a porous plate* IIT, Kharagpur

2 Chakraborty Monotosh *Theoretical study of some problems on seismic wave propagation* ISM, Dhanbad

3 De, Ranjan Kumar *Theoretical study of a few problems on seismic waves* ISM, Dhanbad

4 Ghosh, Debidas *On some problems of applied algebra and integral transforms with certain applications in reliable logic design of digital circuits* U Calcutta

5 Jain Nirmita *Some problems on fixed point theorems* HS Gour Sagar

6 Isha, Lakshmiwar *On certain investigations in theory of measure and perfect measure* LNMU, Darbhanga

7 Kalyanshetti Shridharmappa Bacalingappa *Studies in Einstein-Cartan theory* Shivaji U, Kolhapur

8 Ngangbam, Ibohal Singh *Collineations in theories of gravitation* Shivaji U, Kolhapur

9 Paramguru, Renuka *Integral equation solutions of some crack problems* IIT, Kharagpur

10 Raja Sekhara S *Mathematical analysis of some flow instabilities* Sambalpur U

11 Sensarma, Samar *Pathological studies of some graph algorithms and their computer implementation* U Calcutta

12 Shah, Archana *Some results in general relativity* Kum U, Nainital

13 Shantha, R *Problems relating to some basic concepts in bitopological spaces* U Calcutta

14 Subhash Chand *Stability of some flows with special emphasis on the stability on non-viscous, compressible flows* Kanpur U

15 Suryanarayana, B V *Some constrained stochastic facility location problems* IIT Kharagpur

16 Ved Prakash *Some problems on Fourier analysis* HS Gour, Sagar

17 Venkatappa, M L *A Thesis on thermohypo-elasticity* IIT, Kharagpur

18 Verma, Anant Ram *Unsteady free convection in viscous fluid* IIT, Kharagpur

Statistics

1 Gupta, Chandra Kumar *Some linear and non-linear stochastic models in biosciences* Kanpur U

2 Vaman, H J *Some sequential decision procedures* Kar U, Dharwad

Physics

1 Agarwal, Girish Kumar *Static and dynamic properties of two-dimensional classical electron liquid* Pb U, Chandigarh

2 Ashrit Pandurang V *Transport properties of yttrium, ytterbium and samarium thin films* Kar U, Dharwad

3 Bedi Subhash Chandra *Hyperfine interactions by DPAC technique* Pb U, Chandigarh

4 Chandrasekharan P *Studies in solid state physics Growth and characterisation of (ZnSe) × (CdTe) 1-x single crystals* SVU Tirupati

5 Deshpande, Vilas Krishnarao *Study of electrical conductivity of lithium sulphate based solid electrolyte materials* Nagpur U

6 Dhawan Vinod Kumar *Electrical properties of vanadium tellurite glasses* U Delhi

7 Gopinathan, R *Studies on ice nucleants and atmospheric precipitation* Anna U, Gwindy

8 Gundu Rao, K S *Studies on inner Bremsstrahlung accompanying beta decay* U Mysore

9 Jacob A Sundar *Solid state spectra of certain transition metal ions in some double sulphates* SVU, Tirupati

10 Jagdish Singh *Dynamics of Fermi liquids* Pb U, Chandigarh

11 Joshipura, Kamalnayan Narharprasad *Electron scattering from atoms and molecules* MSU, Baroda

12 Mahapatra, Prasanta Kumar *A study of block electrons in an electric field with special attention to stark ladders* IIT, Kharagpur

13 Pahuja, Om Parkash *Statistical thermodynamics of some polymeric and monomeric solids* U Delhi

- 14 Rav, Arup *Electron impact ionisation of atomic systems* U Calcutta
- 15 Santhanam, S *Study of the electrical properties of SnTe single crystals and structural and electrical properties of SnTe thin films* IIT Kharagpur
- 16 Sao Hirturam *Study of electrical conductivity in ferroelectrics* RSU, Raipur
- 17 Shah Purushottam Mohanlal *Study of the spectra of some of the diatomic molecules (NiBi , CoBi and NiCl)* MSU Baroda
- 18 Sharma Avinash Chander *Low energy hadronic matrix elements in a model simulating bag and harmonic oscillator dynamics* Pb U, Chandigarh
- 19 Singh, L P *Conformation of biomolecules* Kanpur U
- 20 Uthanna, S *Studies in thin films Physical investigations on crystalline films of cadmium-selenium-tellurium system* SVU Tirupati
- Chemistry**
- 1 Acharya Sudhara *Studies in nickel (II) chemistry Kinetic and mechanistic studies involving triis(dimethylglyoximate)nickelate (II)* Berhampur U
- 2 Agarwal S K *Some addition reactions of terpenoidal and other olefinic compounds* Kanpur U
- 3 Agarwal Vishnu Dayal *Substituted cyanomethoxy complexes of manganese* Kanpur U
- 4 Ajit Kumar *Kinetics and mechanism of the oxidation of alpha-hydroxy acids by N-bromo succinimide* Kanpur U
- 5 Bagdi Pushpa *Cation transport across cell membrane Chemical approach to the understanding of the phenomenon* Devi Ahilya Indore
- 6 Bajpai Arun Kumar *Studies on bridged complexes of some 3d-block elements* Kanpur U
- 7 Bali Anu *Studies on chemical synthesis of modified phosphatidyl and possible use of their liposomes in drug delivery* Kanpur U
- 8 Bandopadhyay Dipti *Studies on factors responsible for iron availability in presence of phosphates* U Calcutta
- 9 Bardhopadhyay Prabir Kumar *Studies on synergism and co-oxidation inhibition of mild steel by organic inhibitive species* U Baroda
- 10 Basu, Amaresh *Microbial enzymes studies on structure-function relationship of *Klebsiella aerogenes* citrate lyase (EC 4.13.6)* U Poona
- 11 Bhavsar Chandrakant M *Physico-chemical properties of polystyrene ion exchangers and effect of gamma irradiation thereon* U Poona
- 12 Bhatia Suresh Kumar *Studies on synthesis and bio synthesis of natural products* Kanpur U
- 13 Brar Sarjit *Physico-chemical studies of products of thermolysis and photolysis of some iron (III) complexes* GNDU Amritsar
- 14 Chandrasekhara Rao Velivela *Solvent and pH effects on absorption and fluorescence characteristics of some umbelliferones* U Delhi
- 15 Chaudhary Naik Ram *Synthesis and analytical application of hydroxamic acid derivatives* RSU Raipur
- 16 Chitale Vilas Kashinath *Polarographic studies on some transition metals* HS Gour Sagar
- 17 Chourasia Om Prakash *Chemical and antimicrobial studies of plant products and other organic compounds* HS Gour Sagar
- 18 Dabhi T P *Studies on some compounds of medicinal interest* Bhavnagar U
- 19 Das Mukul *Chemical studies on brain xenobiotic metabolism* Kanpur U
- 20 Das Gupta Samarendra *Studies on the complexometric determination of certain composite elements present in ceramic system S* ISM Dhanbad
- 21 Dehuri Satya Narayan *Studies on bridgehead nitrogen heterocycles* Sambalpur U
- 22 Dhaktode Surendra S *Lanthanide studies of thiourea and its derivatives* U Poona
- 23 Gershoni, Ramniklal Harris *Kinetics and mechanism of keto group assisted alkaline hydrolysis of certain esters* SPU Vaidika Vidyanagar
- 24 Ghosh Netachand *Application of thiocarboxy hydrazides in the determination of platinum metals* U Calcutta
- 25 Gupta Achla *Studies on structural and biological aspects of transition metal complexes* Kanpur U
- 26 Gurdeep Singh *Studies on nature, occurrence and effects of acid mine drainage from some north eastern coalmines of India* ISM, Dhanbad
- 27 Gurmeet Kaur *Studies on the adsorption of organic heterocycles during acid corrosion of pure iron* U Delhi
- 28 Jadhav Jalandar Y *Studies in synthesis of (I) amides and polyamides and (II) polyurethane polymers* U Poona
- 29 Karunakaran K *Studies on some metal deposition processes* IIT Kharagpur
- 30 Kalakwar, Tushar Kant *Physico-chemical studies of the complexes of certain drugs with a few life essential metals* HS Gour, Sagar
- 31 Kundu Bijay *Design and synthesis of peptides of biological interest* Kanpur U
- 32 Majumdar Alok *Synthetic studies in carbocyclic systems* NBU, Rajarammohunpur
- 33 Manchanda, Saroj *N-Benzylidene derivatives of 7-hydroxy-4-substituted coumarins and 2-amino-4-aryl-5-aryla-zothiazoles as potential fungicides and bactericides and nucleophilic substitution of acetylphenones and anisophenols* U Delhi
- 34 Mathew N M *Chemical and scanning electron microscopic studies on failure properties of rubber* IIT, Kharagpur
- 35 Mukherjee Ashit Kumar *Studies on suspended particulate pollutants in coal field areas and their possible remedies* ISM Dhanbad
- 36 Mukhopadhyay Rabindranath *Synthetic studies in sesquiterpenes* NBU Rajarammohunpur
- 37 Munjal Anita *Structural elucidation of the chemical constituent of some medicinal plants* U Delhi
- 38 Natu, A D *Autoxidation of cycloalkenes* U Poona
- 39 Panda, Ashok Kumar *Transition metal complexes with H-donor ligands* IIT Kharagpur
- 40 Panda Jaya Kishore *Oxidation studies* Berhampur U
- 41 Pandey, Sushma *Oxidation kinetics of some organic compounds by chloramine tin acid medium* Bhopal U
- 42 Papi Reddy, K *Studies on metal complexes in solution A spectrophotometric study of the colour reactions between $\text{MO}(\text{II})$ (IV) and $\text{W}(\text{VI})$ with isoniazid in presence of carbonyl derivatives of resacetophenone* SKV, Anantapur
- 43 Parthasarathi J *Chemical investigation of *Tephrosia purpurea* seeds and synthesis of some recently isolated furano- and pyrrolidin flavonoids* U Delhi
- 44 Patel, Kalpana Vinubhai *Studies in binuclear mixed ligand complexes* MSU Baroda
- 45 Patel S V *Studies on transition metal compounds* Bhavnagar U
- 46 Pathi Pradyumna Prabhakar *Organic chemistry of nitrogen and sulphur containing compounds Studies on 1,3,5-triazine and related systems* Nagpur U
- 47 Raghu Pervela *Synthetic experiments in 1-phenyl-naphthalide ligands Thermal and photo-chemical cyclizations of dibenzylidene succinic anhydrides* Andhra U Waltair
- 48 Rai K M Lokanatha *Synthesis in the field of podophyllotoxin derivatives* U Mysore
- 49 Rajni Jani *Studies on the carbohydrate metabolism in the uterus of mice and hamsters during pre-implantation period* Kanpur U
- 50 Rajwar Dwarika Prasad *Study of semiconductor oxides for the oxidation of carbon monoxide and methane* ISM Dhanbad
- 51 Roy Samir Kumar *Studies on the selective separation of certain constituents present in ceramic systems in relation to the complexometric determination* ISM Dhanbad
- 52 Sharma Kedarnath *Physico-chemical studies on the complexes of 5-chloro-2,4-dihydroxy phenones and their oximes* Kanpur U
- 53 Sharma Mahataj Krishan *Oriented eutectic crystallisation* U Jammu
- 54 Sharma S S *Kinetics of the oxidation of organic compounds by cobalt (III) with special reference to polyhydroxy and alcohols and carbohydrates* RDV Jabalpur
- 55 Sharma Vandana *Studies in quantitative estimation by homogeneous precipitation* RDV Jabalpur
- 56 Shrivastava Sarita *Physico-chemical study of the chelates with carcinogenic metals* Bhopal U
- 57 Shukla Madhu *Studies on inter-esterification of oils* Kanpur U

- 58 Singh, Brahma Pal *Determination of copolymerization parameters of some phenolic and related monomers by linear graphical methods* U Delhi
- 59 Singh, Govind Sundaram *Synthesis and structural studies of organometallic tetrathiooxovanates and selenocyanates complexes with the biologically active ligands* Avadh U
- 60 Singh Narinder Paul *Studies towards the synthesis of some azosteroids* Pb U Chandigarh
- 61 Singh, Rajesh Pratap *Chemical and biochemical studies on xenobiotics and microbial differentiation* Kanpur U
- 62 Sinha S K *Studies on complexing behaviour of mercaptotiazoles and related compounds* Kanpur U
- 63 Sinhamahapatra Samarendra *Effect of heat treatment on the physico-chemical characteristics of some synthetic hydrogels* U Calcutta
- 64 Sood Ram Parkash *Chemical investigation of medicinal plants of N W Himalayan region* HS Gour Sagar
- 65 Sreerajan, V V *Studies in titanium chemistry* U Ker, Trivandrum
- 66 Srivastava D K *Chemical and biochemical studies on amoebic differentiation* Kanpur U
- 67 Subramanian S *Microbial enzymes Studies on chitinase (EC 4.1.3.6)* U Poona
- 68 Swapna Nandi *Rheological properties of oil well drilling fluids and additives* ISM, Dhanbad
- 69 Tewari K K *Studies in the quinoline analogues of sulphonamides* Kanpur U
- 70 Ujalambkar Sudhir K *Studies on diffusion of some labelled transition metal ions and their salts in agar gel medium* U Poona
- 71 Verma Ramendra *Reaction mechanism of the oxidation of some phenols by ceric-cerium* Devi Ahilya Indore
- 72 Vinod Kumar *Kinetics and mechanism of reactions of (i) p-Cresol-Formaldehyde (ii) o-Cresol-Formaldehyde (iii) m-Cresol-Formaldehyde (iv) 2,6-Xylenol-Formaldehyde in different media* U Delhi
- Earth Sciences**
- 1 Chakraborti, Manaskumar *Petrology of the parts of Dalma Volcanic Belt Singhbhum District Bihar* U Calcutta
- 2 Jain, Sunil *Thermal gradient in mine airways* ISM Dhanbad
- 3 Prakash, Akhouria Jagadishwar *Studies on dynamic properties of soil and rock* ISM, Dhanbad
- 4 Punwarkar, Vilas *Study of fluorite deposit and associated granite rocks of Chandrapur district, Ramanagara MP with emphasis on its petrogenesis mode of occurrence prospecting upgrading and beneficiation* Bhopal U
- 5 Rama Chandra Raju Penmetsa *Regional gravity and magnetic investigation in southern parts of Cuddapah Basin Andhra U Waltair*
- 6 Ravindrana, Mukkamala *Drought climatology of the Central South Indian Region* Andhra U Waltair
- 7 Rohtash Kumar *Stratigraphy lithofacies and sediment facies sequences of the upper Siwalik subgroup in a part of Panjab sub-Himalaya India* U Delhi
- 8 Samanta Marinalkanti *Structural evolution of the rocks around Rakha, Eastern Singhbhum with special reference to petrology and sulphide mineralization* U Calcutta
- 9 Sastry Viswanatha Mruthyunjaya *Some aspects of air pollution Meteorology of Visakhapatnam Andhra U Waltair*
- 10 Simhadri Raju, Kakaria Pudi Krishna Kumara Venkata *Mineralogy and geo-chemistry of precambrian and associated manganese ores of Vijayanagaram Andhra Pradesh India* Andhra U Waltair
- 11 Srivastava, Neeta Rani *Distribution and behavior of trace elements in the precambrian phosphorites of India* U Delhi
- Engineering & Technology**
- 1 Ballukrava P Narayana *Analysis and interpretation of electrical resistivity data from hard rock area for water wells* Anna U Guindy
- 2 Brahma Ranajit Kumar *Heat transfer by impinging jets* IIT, Kharagpur
- 3 Chaudhuri Dipak Sen *Some studies on (I) momentum and mass transfer in a vertical liquid-gas ejector (II) hydrodynamics of two phase flow in a vertical column* IIT Kharagpur
- 4 Dhargupta, Kajalkumar *Studies on the rheological properties of clay suspension* U Calcutta
- 5 Doodhal, Saratkumar Ramarao *Finite element solution of stresses in granular materials and setting in a flexible pavement* IIT Kharagpur
- 6 Dutta, Kedar Nath *Some aspects of facilities layout planning A quantitative approach* IIT, Kharagpur
- 7 Ganguly, Narayan Chandra *Analysis and optimal control of distributed parameter systems with different inputs* IIT, Kharagpur
- 8 Kajwadkar Arvind Pandurang *Quantum mechanical wave equations with applications to Quarks* RDV, Jabalpur
- 9 Kanango, Ramanath *Analysis of stresses and deformations in nuclear fuel pellets* IIT Kharagpur
- 10 Khushalam Nandkumar Lachmandas *Analysis and design of Bunkers and Silos* Nagpur U
- 11 Kodali, M R *Studies on electron swarm data in certain gases and vapours* SVU Tirupati
- 12 Laxman Kumar *Prediction by the finite element method and experimental verification of the temperature histories in the submerged arc welding* IIT, Kharagpur
- 13 Mitti Chinmay Kumar *Thick film ferrimagnetic pastes and their microwave applications* IIT Kharagpur
- 14 Mal Bimal Chandra *Investigation on optimum depth, spacing and withdrawal rate from partially penetrating wells in semi-confined aquifers* IIT Kharagpur
- 15 Mohan Rao, Meenakshi *Optimizing structural design of clarifier and rapid sand filter* Nagpur U
- 16 Mukherjee, Dibyendu *Some studies on liquid-liquid dispersion in injectors and vertical two phase concurrent flow* IIT Kharagpur
- 17 Namjoshi, Arun Govind *Determination of the economic span to height ratio of small span bridges and culverts and national evaluation of the economical limits of the present type designs* Nagpur U
- 18 Narasimha Raju Kosuri *Optional synthesis of packet switched computer communication networks* Andhra U Waltair
- 19 Nath Dipak Kumar *Study of ferroelectric and antiferroelectric phase transitions in some crystals* NBU, Rajarammohunpur
- 20 Neogi Rajlakshmi *Corrosion behavior of some binary and ternary silicate glasses in aqueous medium* IIT Kharagpur
- 21 Padmanaban Iyer Venkateswaran *Solution of wave equations with application to chromium spectrophotometry* RDV, Jabalpur
- 22 Rajput Govind Singh *Water production functions for wheat* IIT, Kharagpur
- 23 Rama Mohan Rao S *Exact Cartesian coordinate load flow Algorithm development and implementation* IIT Kharagpur
- 24 Ray Atanu *Polyamide imides and related polymers* IIT Kharagpur
- 25 Roy Phek Lal *A study on the effects of certain minor additives on solidification and crystallization in white cast iron* IIT Kharagpur
- 26 Roy Sunil Kumar *Effect of pulsation and swirl on pulverized coal combustion* IIT Kharagpur
- 27 Sahu Nrupalal *Morpho-anatomical cytological and hematoxymic studies on ten species of Pennisetum rich for interpretation of their relationships* IIT Kharagpur
- 28 Samantarai Sanjay Kumar *Effect of pump position on discharge of shallow tubewell* IIT Kharagpur
- 29 Sengupta, Subir Kumar *Cybernetics in identification modelling and prediction of flow and water quality of non-tidal rivers* NBU, Rajarammohunpur
- 30 Singh Krishna Chandra *Fluidmechanical investigations on the effect of velocity slip on steady state performance of externally pressurized porous gas bearings* IIT Kharagpur
- 31 Singh Yash Pal *Studies on multiphase polymeric systems* IIT Kharagpur
- 32 Swain Dasarathi *Natural and isolated protoplasts and cytoplasts Vital staining and fusion properties* IIT, Kharagpur
- 33 Varisar Malini *Rectification and thermally stimulated discharge current studies in perspex pyramid electrets* Bhopal U
- 34 Venkateswarlu Devarapalli *Hydrodynamic stability of parallel flows* U Delhi
- 35 Venkat Reddy, G *Studies on turbulent drag reduction and drag reducing polymers* IIT Kharagpur
- 36 Vijay Kumar *Behaviour of steel fibrous concrete beam column connections* Pb U, Chandigarh
- 37 Yadav, Radhey Shyam *Energy studies in paddy production systems* IIT Kharagpur

NEW PUBLICATIONS

- FEBRUARY - MARCH 1984

DR. RAJENDRA PRASAD : CORRESPONDENCE AND SELECT DOCUMENTS Vol. 1

A Centenary Publication
ed by Valmiki Choudhary
xxii + 346 pp Rs 125 00

**MANAGING AGRICULTURAL FINANCE :
THEORY AND PRACTICE**
by A S Kahlon & Karam Singh
xvi + 344 pp Rs 150 00

ESSENTIALS OF ALGOL PROGRAMMING
by P S Grover
xii + 144 pp Rs 45 00

STRUCTURE AND PROCESSES OF ORGANIZATION
by H C Ganguli
xii + 184 pp Rs 65 00 (hardcover)
Rs 30 00 (paperback)

HANDBOOK FOR POTTERS
by Nirmala Patwardhan
292 pp Rs 80 00

PUBLIC FINANCE
by M C Vaish & H S Agarwal
xvi + 390 pp Rs 90 00 (hardcover)
Rs 40 00 (paperback)

MARX, GREAT OCTOBER, INDIA AND THE FUTURE
by Hiren Mukerjee
vi + 146 pp Rs 35 00

**Y V. ANDROPOV : SPEECHES, ARTICLES, INTERVIEWS
—A SELECTION**
viii + 302 pp Rs 50 00 (hardcover)
Rs 25 00 (paperback)

ALLIED PUBLISHERS PVT. LTD.

13/14, ASAF ALI ROAD, NEW DELHI-110002 Tele 275001, 270366
Telex 031-5153 Grams FOLIO

International Electoral Politics & Law

A recurring encyclopedia of constitutions, parliamentary politics, election laws, political parties and documents discussing 104 nations under one cover for the first time in publishing history

You may order for one individual volume or more vols

		Rs
1	INDIA	840
2	INDIA	840
3	INDIA	840
4	INDIA SUBCONTINENT	840
5	WEST ASIA (Bangladesh, Pakistan, Afghanistan, Burma, Bhutan, Nepal & Sri Lanka)	840
6	ASEAN (Indonesia, Malaysia, the Philippines, Singapore & Thailand)	840
7	EAST ASIA (China, Formosa, Japan, Kampuchea, Laos, North & South Koreas, Mongolia, North & South Vietnams)	840
8	AUSTRALASIA Includes Australia, New Zealand and touches other 9 countries of the Pacific Ocean	840
9	AMERICAS Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Mexico and the USA	840
10	EUROPE (A-G) Austria, Belgium, Denmark, Finland, France, Germany and Greece	840
11	EUROPE (H-S) Hungary, Ireland, Italy, the Netherlands Norway, Portugal, Spain, Sweden & Switzerland	840
12	EUROPE (U) The UK and the USSR	840
13	AFRICA (A-L) Algeria, Botswana, Cameroon, Chad, Egypt, Ethiopia Gabon, Ghana, Kenya, Liberia and Libya	840
14	AFRICA (M-Z) Madagascar, Malawi, Mali, Mauritius Morocco, Nigeria, Senegal, Somalia, South Africa, The Sudan, Tanzania, Tunisia, Uganda, Zaire, Zambia and Zimbabwe	840
15	Comprehensive Index and Bibliography	840

EACH VOLUME IS PRICED US \$ 120 FOR OVERSEAS BUYERS

THE ENCYCLOPEDIC VOLUMES ARE A MUST FOR SCHOLARS OF HISTORY, POLITICS, INTERNATIONAL AFFAIRS & LAW IN UNIVERSITIES and also for the legislatures and the judiciary, election offices and newspapers and a unique reference tool for researchers

Format Each vol is in a sturdy loose-leaf Binder (25x20x10 cms) with provision for additions and alterations sectionwise, subjectwise and countrywise

UPDATED SUPPLEMENTS ARE AVAILABLE BI-MONTHLY FROM 1984 ONWARDS @ Rs. 460 (US \$ 80) PAYABLE IN ADVANCE ANNUALLY.

Editor SHIV LAL

Research by Institute For Electoral Studies, New Delhi
Publishers The Election Archives
CA-33, Tagore Garden, New Delhi-110027

CONTINUING EDUCATION DEPARTMENT

UNIVERSITY OF MADRAS MADRAS-600005

Dated 23-2-1984

Applications (EIGHT COPIES) are invited for the post of Registrar University of Madras, so as to be received by the Vice-Chancellor on or before 26th March, 1984. The post will carry a scale of pay of Rs 1500-60-1800-100-2000-125-2-2500 plus allowances admissible under the rules. Applications should be sent to Dr M Santappa Vice-Chancellor University of Madras Chepauk Madras-600 005. The applicant should be a holder of a Post-Graduate Degree in any discipline including professional courses with 10 years teaching research administrative experience. Nominations from educationists educational organizations and other eminent persons will also be received and considered. The candidate should not be ordinarily more than 50 years of age. The appointment is on contract for a period of 5 years in the first instance. The proforma application to be filled in by the candidate should contain the following details:

- 1 Name of the applicant/nominee
- 2 Address
 - (a) Office
 - (b) Residence
 - (c) To which communications should be sent
- 3 Academic qualifications with dates on which Degrees were taken
- 4 Experience
 - (a) Teaching Under Graduate Post-Graduate Total Number of years
 - (b) Research Giving details of Publications
 - (c) Administration
- 5 Age & Date of Birth
- 6 Present Occupation
- 7 Distinctions Honours if any
- 8 Membership of Professional Learned bodies if any
- 9 Any other information
- 10 Referees
- 11 Testimonials

The completed proforma application should carry the signature of the candidate/nominee with station and date.

S Shanmuganathan
REGISTRAR-IN-CHARGE

SOUTH GUJARAT UNIVERSITY SURAT-395007

Dated 28-2-1984

Applications are invited in the prescribed proforma (in eight copies) for

the post of Director of the proposed Department of Continuing Education and Extension Work in the Scale of Rs 1500-60-1800-100-2000. The post is sanctioned upto 31-3-1987 for the present but it may be made permanent in future. The post carries benefits of dearness allowance and house rent allowance but does not carry other benefits which are available to permanent employees for the present. If a person holding the post of Professor in this University is selected he will be allowed to carry the scale of Professor worthy benefits.

The Director will be in overall administrative charge of the Department and it will be a non-vacation post. The details of job specifications will be supplied along with the application forms to intending applicants.

The minimum qualifications prescribed for the post are as under:

- (a) First or Second Class Master's Degree of an Indian University or an equivalent qualification of a foreign University in adult education/Social Sciences Social Work
- (b) A research degree of the doctorate standard in any of the social sciences education, adult education or on the basis of review of published research carried out
- (c) About ten years experience in programme planning administration and teaching
- (d) Persons with experience in community development projects with emphasis on adult non-formal education will be preferred

Note: Conditions of experience and of qualifications for the post may be relaxed in very special cases for very experienced persons if suitably qualified candidates are not available on the recommendation of the Selection Committee.

According to the policy of reservation adopted by the University candidates belonging to Scheduled Tribes Castes and other backward classes will get preference for appointment. Such candidates should clearly indicate in their applications the caste to which they belong and attach necessary certificates along with their applications. If suitable candidates belonging to these classes are not available candidates belonging to other classes would be considered for appointment.

Information about job specification for the post and prescribed application forms can be had from the undersigned on payment of Rs 7/- in cash

or by postal order along with self-addressed envelope of 22 cm x 13 cm size, postal stamps worth Rs 3 10 p affixed thereon.

The last date for receipt of applications is 31-3-1984

G A Desai
REGISTRAR

UNIVERSITY OF ROORKEE ROORKEE

Advertisement No EST(A) 28/2 A-86
(Advt) 84

Dated Feb 28, 1984

Applications are invited for the post of a PROFESSOR to fill the LAKSHMI SINGHANIA MEMORIAL CHAIR created from the donations received from Ms Straw Products Limited New Delhi for a period of 3 years, at the INSTITUTE OF PAPER TECHNOLOGY (UNIVERSITY OF ROORKEE) SAHARANPUR. The Professor is expected to promote academic activities in the field of Pulp Paper Recovery Design, Maintenance and Management and other areas related to the Paper Industry. He will be receiving a consolidated salary of Rs 4000/- per month and will be provided with a rent free unfurnished residential accommodation in the campus of the Institute. He will be expected to teach regular classes in the area of his specialisation at the Institute of Paper Technology, Saharanpur and will be required to guide the projects of senior students, conduct seminars and prepare the class room materials for the development of the degree and diploma courses. He will also be expected to initiate and guide research on problems of Paper Industry.

The expert should be a first class graduate in Engineering preferably in the areas of Paper Pulp Chemical Engg or M Sc M Tech in the areas of Cellulose Chemistry/Pulp and Paper Science. Higher academic qualifications will be preferable. He should be below 60 years of age and should have a minimum experience of 15 years in conduct and guidance of Research/Teaching Consultancy Plant Operation in the fields of Pulp, Paper and Recovery.

Applications giving complete bio data and a passport size photograph may be made on plain paper and sent to the Registrar University of Roorkee (U P) by 15th April, 1984

REGISTRAR

KARNATAK UNIVERSITY

DHARWAD

No KU BOA ADVT. 84/682

Date 5th March, 1984

Advertisement

The University has set up a centre sponsored by the Ministry of Home Affairs for coaching SC ST graduates for the All India Competitive Examinations. This is a temporary scheme. Applications are invited for the following posts:

1 Lecturer in English
Scale Rs 700-1600 (Reserved for SC)

2 Lecturer in General Knowledge
Scale Rs 700-1600 (Reserved for ST)

2 Qualifications

(a) For post at Sr No 1 Consistently good academic record with at least a Second Class Master's Degree in English Literature from an Indian University or equivalent degree.

(b) For post at Sr No 2 --Consistently good academic record with at least a Second Class Master's Degree in Political Science Economics Sociology History or equivalent degree.

3 Candidates should please note that these posts are temporary

4 Application forms can be obtained from the Director, Prasaranga K U Dharwad on payment of Rs 4/- per application in person or by sending a crossed D D of Rs 28 - plus Rs 2/-

for postage payable to the Finance Officer, K U Dharwad

5 Application forms alongwith testimonials should be furnished in seven sets so as to reach the undersigned on or before 31-3-1984

REGISTRAR

Scale

Rs 1200-50-1300-60-1600-Assessment-60-1900

3 Lecturer in Microbiology (Two Posts)

Scale

Rs 700-40-1100-50-1300-Assessment-50-1600

Technician C' (Electronics)

Scale

Rs 380-12 500-EB-15-560

Details of the prescribed qualifications etc will be supplied alongwith the application forms

All the posts carry benefits of Dearness Allowance, Provident Fund, Gratuity or Pension Scheme as per University rules

Preference will be given to qualified candidates belonging to Scheduled Castes/Scheduled Tribes Socially and Educationally and/or Economically backward classes

R C Thakkar
REGISTRAR

GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

PUNE 411004

Applications are invited for 4 Posts of Research Assistants in the

Pay-Scale Rs 550-25-750-30-900 plus dearness and other allowances

The candidates with atleast high Second Class in BA and MA Economics / M Sc Agricultural Economics / MA or M Sc Statistics with knowledge of computer programming, may apply on or before

20th April, 1984 in the prescribed form obtainable from the Registrar

Knowledge of Marathi desirable for work in Agricultural Economics

R. Nath
DIRECTOR